Audit of Forest Planning and Practices
Arrow Boundary Forest District Woodlots

Woodlot licence W0408
Woodlot licence W0475
Woodlot licence W0479
Woodlot licence W1470
Woodlot licence W1832

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Table of Contents

Board Commentary 1

Audit Results 3
- Background 3
- Audit Approach and Scope 4
- Planning and Practices Examined 4
- Audit Opinion 6

Appendix 1: Forest Practices Board Compliance Audit Process 8

Board Commentary

In June 2007, the Board conducted a full scope compliance audit of forest planning and practices of five woodlot licence tenures in the Arrow Boundary Forest District (see map on page 4). The woodlot licences selected were: W0408, W0475, W0479, W1470, and W1832.

The audit assessed the planning, activities and obligations of the five woodlot licensees including:

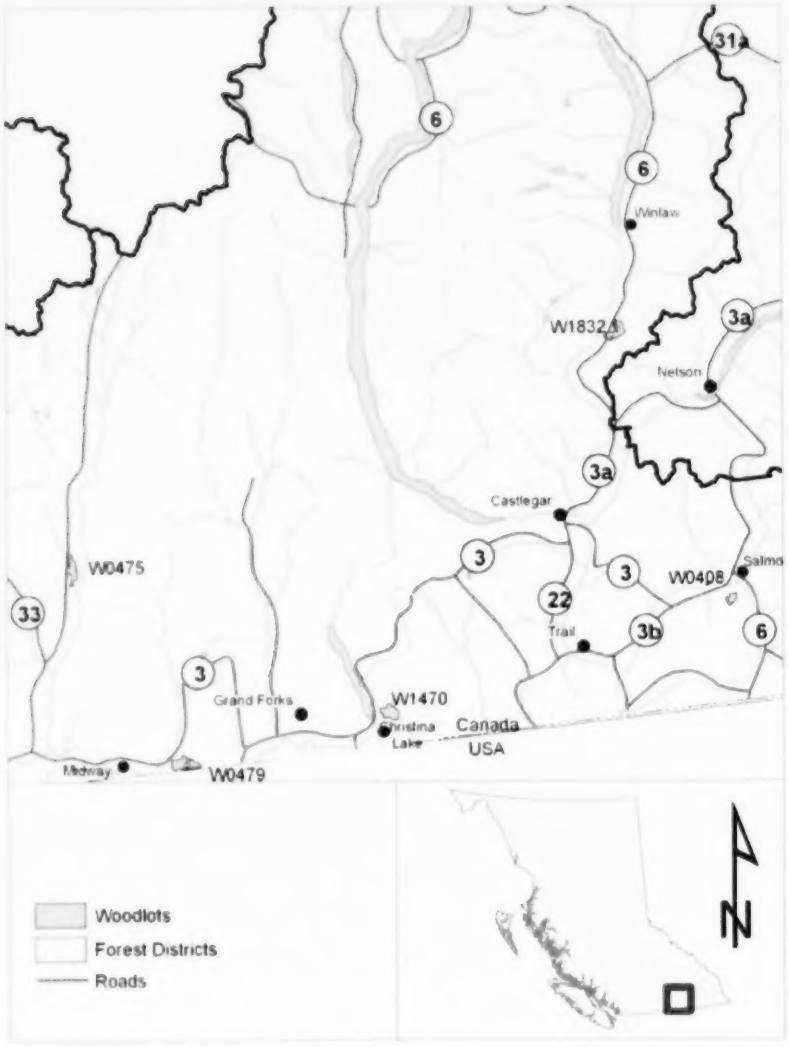
- operational planning;
- 11 harvested cutblocks;
- more than 48 kilometres of road work;
- 22 cutblocks with silviculture activities or obligations; and
- fire equipment at one active work site.

Although the auditors noted that the five woodlots were diverse in many ways, including the forest management style, the reasons for harvest, and even the technical forestry skills of the woodlot holders, the results on the ground were very similar. The Board is pleased to note that the planning and field activities undertaken by the licensees on woodlot licences W0408, W0475, W0479, W1470 and W1832 complied with legislative requirements in all significant respects.

However, for woodlot W0408, the audit identified three small harvest sites where restocking had not been established in accordance with regulations. Subsequent to the field audit, the licensee for W0408 has planned a number of actions that will enable these blocks to achieve free-growing status as soon as possible.

Audit of Forest Planning and Practices

Arrow Boundary Woodlots



Audit Results

Background

As part of the Forest Practices Board's 2007 compliance audit program, the Board selected five woodlot licences in the Arrow Boundary Forest District (the Licences) in southern British Columbia for audit. The Licences selected are: Woodlot licence W0408, Woodlot licence W0475, Woodlot licence W0479, Woodlot licence W1470, and Woodlot licence W1832.

The Board randomly selected the Arrow Boundary Forest District for a full scope audit in 2007. From the population of licences within the forest district, it was noted that woodlot licences had not been audited in recent years. The forest district was selected randomly, and the individual woodlot licences were selected based on the level of harvest activity and not performance or geographic location.

The licences are located in the Southern Interior Forest Region and are situated in the south/southwest portion of the forest district.

- Woodlot licence W0408 was granted in 1987 and renewed in spring of 2007. It includes 52 hectares of private land and 590 hectares of Crown land in two parcels located on the hillsides above Erie Lake and Highway #3, approximately 5 kilometres west of Salmo. The woodlot has an allowable annual cut of 1,700 cubic metres.

- Woodlot licence W0475 was awarded in 1989 and includes 26 hectares of private land and 600 hectares of Crown land, 20 kilometres north of Westbridge in the Kettle Valley. The woodlot has an allowable annual cut of 1,276 cubic metres.

- Woodlot licence W0479 includes 194 hectares of private land and 600 hectares of Crown land. The licence area is located approximately 6 kilometres east of Midway south of Highway #3 in the upper Norwegian Creek drainage along the Canada / USA border. The licence was first awarded in 1994 and subsequently transferred to the current licence holders in the fall of 2006. The woodlot has an allowable annual cut of 1,279 cubic metres.

- Woodlot licence W1470 includes 31 hectares of private land and 600 hectares of Crown land. The licence is located approximately 4 kilometres east of the Village of Christina Lake in the upper Maida Creek drainage. The woodlot has an allowable annual cut of 1,321 cubic metres.

- Woodlot licence W1832 is located near Winlaw and includes 21 hectares of private land, 2 kilometres north of the Slocan River, and 598 hectares of Crown land on the hillsides above Winlaw Creek, approximately 3 kilometres east of the village of Winlaw. The woodlot has an allowable annual cut of 1,053 cubic metres.

The topography in most of the woodlot areas is a configuration of lower, mid and upper slopes, benches and ridge tops. Soils are generally stable and well drained. Elevations of the licences range from 650 to 1,400 metres and lie within subzone variants of the Interior Douglas-fir and Interior cedar–hemlock biogeoclimatic zones.

The Board's audit fieldwork took place from June 11 to 15, 2007.

Audit Approach and Scope

The audit examined each woodlot licence's planning, field activities and obligations in the areas of:

- operational planning (including forest development plans[i], site plans[ii] and woodlot licence plans[iii]);
- timber harvesting;
- road construction, maintenance and deactivation;
- silviculture activities and obligations; and
- fire protection at active work sites.

These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* (the Code), *Forest and Range Practices Act* (FRPA[iv]) *Wildfire Act* (WA) and related regulations (in particular, the *Woodlot Licence Forest Management Regulation* (WLFMR) and the *Woodlot Licence Planning and Practices Regulation* (WLPPR)). All activities, planning and obligations for the period January 1, 2006, to the day of the field audit in June 2007 were included in the scope of the audit.

The Board's audit reference manual, *Compliance Audit Reference Manual, Version 6.0, May 2003* and the addendum to the manual for the 2007 audit season, set out the standards and procedures that were used to carry out this audit.

Planning and Practices Examined

Operational Planning

- The licence holder of W0408 conducted activities during the audit period authorized by a forest development plan (FDP) and major FDP amendment #2, which was approved in June 2006.
- Activities undertaken on W0475 were authorized by a woodlot licence plan approved in April 2005.
- The licence holder of W0479 conducted activities authorized by a woodlot licence plan approved in November 2006.
- Activities undertaken on W1470 were authorized by FDP #2 approved in January 2003.
- The licence holder of W1832 conducted activities authorized by a FDP approved in January 2000 and major amendment #1 approved in June 2005.

Higher Level Plans

The forest district covers a large geographic area under the Kootenay Boundary Higher Level Plan Order, 2002. In January 2001, government released the Kootenay Boundary Higher Level Plan Order, which established ten legal objectives. The higher level plan was revised in October 2002 to balance social, economic and environmental values. Since 2002, there have been seven variances to address wildlife, mountain pine beetle infestation, and economic concerns. The higher level plan covers a large geographic area and tends to set landscape level objectives that fall outside of the scope of this audit. Where applicable, the audit assessed site level requirements identified in the plan, such as meeting a visual quality objective or management of ungulate winter range areas.

Practices

The audit work for each woodlot included an evaluation of records and plans, and on-the-ground inspections of roads and cutblocks. No aerial assessments were undertaken.

Table 1: The activities and obligations assessed during the audit

Activity/Obligation	W0408	W0475	W0479	W1470	W1832
Harvesting	3 cutblocks	3 cutblocks	1 cutblocks	2 cutblocks	2 cutblocks
Road Construction	2.9 km	None	3 km	3.3 km	None
Road Maintenance	3.5 km	16.7 km	5 km	5.2 km	8.6 km
Road Deactivation	None	None	None	None	None
Regeneration	3 blocks	None	1 block	2 blocks	1 block
Free Growing	1 block	6 blocks	None	None	None
Silviculture	5 blocks planted	1 block planted	None	2 blocks planted	None
Fire Protection on Active Work Sites	1 site	None	None	None	None

All activities and obligations that occurred during the audit period were assessed in the audit.

Findings

The audit found that the planning and field activities undertaken by the licensees on woodlot licences W0408, W0475, W0479, W1470, and W1832 complied in all significant respects with the requirements of the Code, FRPA, WA and related regulations.

Reforestation

A holder of a woodlot licence must establish a stand that meets the minimum stocking requirements and must establish a free-growing stand by the specified free-growing date in accordance with the regulations (WLFMR and WLPPR).

The audit identified three small harvest sites (total of 22.1 hectares in size) on woodlot W0408 where restocking had not been established in accordance with regulations. At two sites, stands did not meet minimum stocking standards by the specified regeneration date. One of these sites (2.7 hectares) remains not sufficiently restocked; whereas, survey results subsequent to the field audit on the other site (16.8 hectares) indicate that the stand is now restocked. At the third site (2.6 hectares), the licensee did not establish a free-growing stand by the specified date and the site also remains not sufficiently restocked.

None of these findings are considered individually or cumulatively significant due to the small area affected. However, for woodlot licence W0408, silviculture performance and practices to attain free-growing stands require improvement.

Subsequent to the field audit, the licensee for W0408 has planned a number of actions that will enable these blocks to achieve free growing as soon as possible.

Audit Opinion

In my opinion, the operational planning, timber harvesting, road construction, road maintenance, silviculture, and fire protection planning carried out under woodlot licences W0408, W0475, W0479, W1470, and W1832 complied in all significant respects with the requirements of the *Forest Practices Code of British Columbia Act*, the *Forest and Range Practices Act*, the *Wildfire Act*, and related regulations, as of June 2007. No opinion is provided regarding road deactivation activities.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Without qualifying my opinion, I draw attention to the *Reforestation* section of this report, which describes silviculture practices on woodlot licence W0408 requiring improvement.

The *Audit Approach and Scope* and the *Planning and Practices Examined* sections of this report describe the basis of the audit work performed in reaching the above conclusion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient forest planning and practices to support an overall evaluation of compliance with the Code, FRPA and WA.

C R Mosher

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Director, Audits
January 15, 2008

[i] A forest development plan is an operational plan that provides the public and government agencies with information about the location of proposed roads and cutblocks for harvesting timber over a period of at least five years. The plan must specify measures that will be carried out to protect certain forest resources prescribed by regulation. It must also be consistent with any higher level plans. Site-specific plans are required to be consistent with the forest development plan.

[ii] A site plan is a site-specific plan that is required in place of a silviculture prescription as of December 17, 2002, except where there is already an existing silviculture prescription. The site plan contains many of the same elements as a silviculture prescription and is designed to identify resource values and define what a free-growing stand will be on that site. However, it is not an operational plan under the Code and does not require review or approval by government to be implemented.

[iii] Under the *Forest and Range Practices Act* (FRPA), a woodlot licence plan replaces the woodlot forest development plan and site plans. The woodlot licence plan must be consistent with government's objectives for values such as water, soils, and cultural heritage resources. The woodlot licence plan must address the entire woodlot licence area and performance requirements such as the obligation to reforest a site after logging, and the requirements set out in the *Woodlot Licence Planning and Practices Regulation* 21/2004 (WLPPR). The term of a woodlot licence plan is ten years.

[iv] Most of the *Forest Practices Code of British Columbia Act* (the Code) was repealed on January 31, 2004 and replaced with the *Forest and Range Practices Act* (FRPA). The transitional provisions of FRPA state that the Code continues to apply to forest practices carried out under a forest development plan. This continues until there is an approved woodlot licence plan, at which point, the requirements of FRPA apply. Therefore, although FRPA came into effect prior to the audit period, the legislated forest practices requirements that applied to three of the five auditees were the requirements of the Code.

Appendix 1:
Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government and agreement-holders under the *Forest and Range Practices Act* (FRPA), section 122, and the *Wildfire Act* (WA). Compliance audits examine forest or range planning and practices to determine whether or not they meet FRPA and / or WA requirements. (The transitional provisions of FRPA state that the Code continues to apply to forest practices carried out under a forest development plan, until there is an approved forest or range stewardship plan, at which point the requirements of FRPA apply.

Selection of auditees

The Board conducts about eight or nine compliance audits annually. Most of these are audits of agreement holders. The Board also audits the government's BC Timber Sales Program (BCTS). This section describes the process for selecting agreement holders to audit.

To begin with, auditors randomly select an area of the Province, such as a forest district. Then the auditors review the forest resources, geographic features, operating conditions and other factors in the area selected. These are considered in conjunction with Board strategic priorities (updated annually), and the type of audit is determined. At this stage, we choose the auditee(s) that best suits the selected risk and priorities. The audit selections are not based on past performance.

For example, in 2007, the Board randomly selected the Robson Valley Timber Supply Area as a location for an audit. After assessing the activities within that area, we discovered that two licensees had recently closed operations due to financial problems. As the Board has expressed concern in the past about financially strapped companies failing to meet outstanding obligations, such as reforestation and road maintenance, the audit focused on the status of the outstanding obligations of these two licences.

For BCTS audits, a forest district within one of the 12 business areas within the province is selected randomly for audit.

Audit Standards

Audits by the Board are conducted in accordance with the auditing standards developed by the Board. These standards are consistent with generally accepted auditing standards. The standards for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

Audit Process

Conducting the Audit

Once the Board randomly selects an area or district and determines the scope of audit to be conducted and the licensee(s) to be audited, all activities carried out during the period subject to audit are identified (such as harvesting or replanting, and road construction or deactivation activities). Items that make up each forest activity are referred to as a population. For example, all sites harvested form the timber harvesting population and all road sections constructed form the road construction population.

A separate sample is then selected for each population (e.g., the cutblocks selected for auditing timber harvesting). Within each population, more audit effort (i.e., more audit sampling) is allocated to areas where the risk of non-compliance is greater.

Audit field work includes assessments of features using helicopters and ground procedures, such as measuring specific features like riparian reserve zone width. The audit teams generally spend one to two weeks in the field.

Evaluating the Results

The Board recognizes that compliance with the many requirements of the Code, FRPA and WA, is more a matter of degree than absolute adherence. Determining compliance, and assessing the significance of non-compliance, requires the exercise of professional judgment within the direction provided by the Board.

The audit team, composed of professionals and technical experts, first determines whether forest practices comply with legislated requirements. For those practices considered to not be in compliance, the audit team then evaluates the significance of the non-compliance, based on a number of criteria, including the magnitude of the event, the frequency of its occurrence and the severity of the consequences.

Auditors categorize their findings into the following levels of compliance:

Compliance – where the auditor finds that practices meet Code, FRPA and WA requirements.

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that one or more non-compliance event(s) is not significant and not worthy of reporting. Therefore, this category of events will not be included in audit reports.

Significant non-compliance – where the auditor determines a non-compliance event(s) or condition(s) is or has the potential to be significant, and is considered worthy of reporting.

Significant breach – where the auditor finds that significant harm has occurred, or is beginning to occur, to persons or the environment as a result of one or many non-compliance events.

If it is determined that a significant breach has occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the Minister of Forests and Range.

Reporting

Based on the above evaluation, the auditor then prepares a draft audit report. The party being audited is given a draft of the report for review and comment before it is submitted to the Board.

Once the auditor submits the draft report, the Board reviews it and determines if the audit findings may adversely affect any party or person. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report. The representations allow parties that may potentially be adversely affected to present their views to the Board.

The Board then reviews the draft report from the auditor and the representations from parties that may potentially be adversely affected before preparing its final report. Once the representations have been completed, the report is finalized and released: first to the auditee and then to the public and government.

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